

IN THE CLAIMS:

Please amend claims 3, 4, 6, 7, 13, 14, 16 and 17 as follows.

1. (Original) A routing method for routing data packets from a source terminal (MN1, H1; Enx, Ex) to a destination terminal (MN2, H2; MN1, H1) via at least one communication network (NW1; NW1, NW2),

said at least one communication network comprising

at least one mobility agent entity (HA1, HA2, AR1, AR2, ERn, ERm)) for each of said terminals,

the method comprising the steps of:

establishing a route (1, 2, 3, 4; 4, 5, 6, 7) from the source (MN1, H1; Ex, ENx)

via at least one first mobility agent (AR1; ERn) associated to said source,

at least two consecutively arranged second mobility agents (HA2, AR2; HA1, AR1) associated to said destination,

to said destination (MN2, H2; MN1, H1), deciding that said route is to be optimized, and upon said decision,

rerouting said route from one of said at least one first mobility agents (AR1; ERn) directly to one of the at least two consecutively arranged second mobility agents (AR2; AR1) such that at least one intermediate mobility agent (HA2; HA1) in said route is bypassed in the resulting rerouted route.

2. (Original) A method according to claim 1, wherein said decision is taken at one of said at least two second mobility agents (HA2, HA1) associated to said destination.

3. (Currently amended) A method according to claim 1 ~~or~~ 2, wherein said decision is based on an indication by the source or destination to optimize the route or to request for a specific quality of service for which route optimization is beneficial.

4. (Currently amended) A method according to claim 1 ~~or~~ 2, wherein said decision is based on a service type of the traffic between the source and the destination.

5. (Original) A method according to claim 4, wherein said decision to optimize the route is taken in case the service type indicates a service imposing delay requirements.

6. (Currently amended) A method according to claim 4 ~~or~~ 5, wherein said service type indicates real-time traffic.

7. (Currently amended) A method according to claim 1 ~~or~~ 2, wherein said decision is based on an estimated benefit from route optimization between said source and said terminal, and in case said estimated benefit exceeds a predetermined threshold value, it is decided to reroute said route.

8. (Original) A method according to claim 1, wherein said rerouting comprises the steps of informing one of said at least one first mobility agents of a current care_of_address of the destination.

9. (Original) A method according to claim 8, wherein said informing comprises the steps of sending a message from one of said consecutively arranged second mobility agents to one of said first mobility agents including the current care_of_address of the destination.

10. (Original) A method according to claim 3, wherein said indication triggering the deciding for route optimization is included in a resource reservation signaling.

11. (Original) A routing system for routing data packets from a source terminal (MN1, H1; Enx, Ex) to a destination terminal (MN2, H2; MN1, H1) via at least one communication network (NW1; NW1, NW2),

said at least one communication network comprising
at least one mobility agent entity (HA1, HA2, AR1, AR2, ERn, ERm)) for each of
said terminals,

the system comprising:
route establishment means adapted for establishing a route (1, 2, 3, 4; 4, 5, 6, 7)
from the source (MN1, H1; Ex, ENx)
via at least one first mobility agent (AR1; ERn) associated to said source,
at least two consecutively arranged second mobility agents (HA2, AR2; HA1,
AR1) associated to said destination,
to said destination (MN2, H2; MN1, H1),
decision means adapted for deciding that said route is to be optimized, and,

rerouting means, adapted to perform in response to said decision a rerouting of said route from one of said at least one first mobility agents (AR1; ERn) directly to one of the at least two consecutively arranged second mobility agents (AR2; AR1) such that at least one intermediate mobility agent (HA2; HA1) in said route is bypassed in the resulting rerouted route.

12. (Original) A system according to claim 11, wherein said decision means is located at one of said at least two second mobility agents (HA2, HA1) associated to said destination.

13. (Currently amended) A system according to claim 11 ~~or 12~~, wherein said decision is based on an indication by the source or destination to optimize the route or to request for a specific quality of service for which route optimization is beneficial.

14. (Currently amended) A system according to claim 11 ~~or 12~~, wherein said decision is based on a service type of the traffic between the source and the destination.

15. (Original) A system according to claim 14, wherein said decision to optimize the route is taken in case the service type indicates a service imposing delay requirements.

16. (Currently amended) A system according to claim 14 ~~or 15~~, wherein said service type indicates real-time traffic.

17. (Currently amended) A system according to claim 11 ~~or 12~~, wherein said decision is based on an estimated benefit from route optimization between said source and said terminal, and in case said estimated benefit exceeds a predetermined threshold value, it is decided to reroute said route.

18. (Original) A system according to claim 11, wherein said rerouting means comprises informing means adapted for informing one of said at least one first mobility agents of a current care_of_address of the destination.

19. (Original) A system according to claim 18, wherein said informing means comprises sending means adapted to send a message from one of said consecutively arranged second mobility agents to one of said first mobility agents including the current care_of_address of the destination.

20. (Original) A system according to claim 13, wherein said indication triggering the decision means for deciding for route optimization is included in a resource reservation signaling.